

REMARKS

A request for an interview to discuss the amendment with the Examiner prior to filing was denied for the reason that the amendment includes substantive changes to the claims. Accordingly, to assure that the Examiner considers the substantive changes to the claims, this amendment is filed along with a Request for Continued Examination.

The application is amended in a manner believed to place it in condition for allowance.

Claims 19, 22, 37, and 67 are amended. Support for the amended claims may be found, for example, at page 4, lines 18-22, page 5, lines 24-38, page 7, lines 20-34, the paragraph bridging pages 7 and 8, and pages 9-10.

Claims 19-28, 33-63 and 66-75 remain pending in the application.

Claims 19-28, 33-36, 42-63 and 66 are rejected under 35 USC §103(a) as being unpatentable over SAUD et al. US 2004/0001797 ("SAUD") in view of TU et al. WO 92/09309 ("TU"). This rejection is respectfully traversed.

SAUD is offered for teaching a method of disinfecting a hard surface employing a composition containing 1-(2-ethylhexyl)glycerol ether in amount of 0.5%, which is intended to be dispensed as a spray or wiped on a surface, including kitchen and bathroom surfaces, for a contact time of at least 30 seconds.

SAUD provides immediate and a residual kill of microbes at ambient or room temperature, as acknowledged by the Official Action.

However, SAUD fails to disclose or suggest that for a given treatment time the composition is not effective to disinfect at 25°C, but includes an effective amount of 1-(2-ethylhexyl)glycerol ether to disinfect at from about 40 to about 80°C. Indeed, it appears that SAUD requires an effective amount of organic acid, or low pH, in order to provide efficacy at room temperature. See, e.g., paragraphs 7, 8, and 15-19.

TU is offered for the general teaching "percent kill can usually be increased just by increasing the temperature of the solution and/or sterilization time". TU specifically discloses effective treatment from 20-45°C for 5 to 120 hours. See, e.g., pages 7, 8, 10 and Figures 1 and 2.

However, the proposed combination cannot render obvious the claimed invention for at least three reasons:

I. The combination fails to teach a composition not effective at 25°C, but effective at about 40°C to about 80°C.

The claimed composition unexpectedly has an exceptionally steep temperature gradient of the microbicidal effect. That is, the claimed composition shows low to no activity at room temperature, but is effective at higher temperatures. Thus, the composition of the claimed method achieves more than a simple percent kill increase with the

increase in temperature or time, as suggested by the proposed combination.

The proposed combination, at best, is a composition that is effective at room temperature, or 25°C, for seconds, (i.e., upon immediate treatment, as well as some time after) and at an increased time of 5 to 120 hours and/or at increased temperatures up to 100°C. There is no recognition of a composition showing low to no activity at room temperature, but is effective at higher temperatures.

II. The suggested modification of SAUD is contrary to the main objective of SAUD.

One of ordinary skill in the art would have been discouraged from increasing the temperature of the solution of SAUD for treatment. The objective of SAUD is to simplify the use of conventional "on the go" compositions by eliminating the need for water source, which is required for rinsing. See, e.g., paragraphs 4-6. In order to increase the temperature to about 40°C to about 80°C from SAUD's ambient or room temperature would require the addition of a heating source, which is contrary to SAUD's objective of simplifying the use of the "on the go" compositions.

III. TU, taken as a whole, is contrary to SAUD.

One of ordinary skill in the art would be discouraged from looking to TU to improve SAUD, as TU's method is contrary to the acidic and immediate "on the go" treatment of SAUD. TU

requires (1) a basic pH, e.g., as shown in Example 1, and (2) a long kill time in a bath for 5 to 120 hours at a temperature ranging from ambient to 100°C. Indeed, TU admits that treatment of the surface occurs within an acceptable of time of 7-8 hours. See, e.g., page 7, line 22 to page 8, line 28.

Therefore, withdrawal of this rejection is respectfully rejected.

Claims 37-41 are rejected under 35 USC §103(a) as being unpatenable over SAUD in view of TU, further in view of CARTER US 5,686,045 ("CARTER"). This rejection is respectfully traversed.

SAUD and TU are offered for the reasons discussed above. The Official Action acknowledges that the combination fails to teach an elevated pressure.

CARTER is offered for teaching increasing pressure to drive and force antimicrobial solution into an instrument.

However, regardless of the ability of CARTER to teach that for which it is offered CARTER cannot remedy the shortcomings of SAUD and TU for reference purposes, as CARTER fails to disclose or suggest a composition that does not provide effective disinfection at 25°C, but does provide disinfection at about 40°C to about 80°C.

Therefore, withdrawal of the rejection is respectfully requested.

Claims 67 and 68 are rejected under 35 USC 103(a) as being unpatentable over LANGFORD US 5,906,802 ("LANGFORD") in view of WALDMANN-LAUE et al. US 5,539,001 ("WALDMANN-LAUE") and SAUD. This rejection is respectfully traversed.

LANGFORD is offered for teaching sterilizing a medical instrument by cleaning, disinfecting with a sterilant, rinsing with sterile water, and drying. The Official Action recognizes that LANGFORD fails to disclose the use of an alkyl glycerol ether as the sterilant.

WALDMANN-LAUE is offered for teaching disinfecting hard surfaces with an aromatic alcohol and a glycerol ether having a C₆₋₂₂ alkyl or alkoxymethyl group. The position of the Official Action is that as WALDMANN-LAUE suggests the sterilant is effective at low-temperatures, it would have been suitable sterilant for the sterilization process of LANGFORD.

SAUD is offered for teaching a method of disinfection using 1-(2-ethylhexyl)glycerol ether.

The position of the Official Action is that it would have been obvious to use the 1-(2-ethylhexyl)glycerol ether of SAUD for the combination of LANGFORD and WALDMANN-LAUE, as SAUD evidences that 1-(2-ethylhexyl)glycerol ether is a functional equivalent of alkoxymethyl containing glycerol ethers of WALDMANN-LAUE.

However, the proposed combination fails to teach the claimed invention, as none of the cited publication disclose a

composition that is not capable of disinfecting said article absent thermochemical disinfection, as the publications teaching a specific composition, i.e., WALDMANN-LAUE and SAUD, are effective during non-thermal treatment. Thus, the proposed combination fails to render obvious the claims 67 and 68.

Therefore, withdrawal of this rejection is respectfully requested.

Claims 69-75 are rejected under 35 USC 103(a) as allegedly being unpatentable over LANGFORD in view of WALDMANN-LAUE et al., further in view of TU. This rejection is respectfully traversed.

LANGFORD, WALDMANN-LAUE, and SAUD are offered for the reasons stated above.

TU is offered for teaching "percent kill can usually be increased just by increasing the temperature of the solution and/or sterilization time", as well as the specific treatment of a hard surface with a glycidyl ether composition at a treatment temperature between ambient temperature to 100°C.

However, the composition of the claimed method achieves more than a simple percent kill increase with the increase in temperature or time. Indeed, the claimed composition is effective during thermochemical disinfection, not absent thermochemical disinfection.

That is, the claimed composition shows low to no activity at room temperature, but is effective at higher

temperatures. Applicants have discovered that the claimed composition unexpectedly has an exceptionally steep temperature gradient of the microbicidal effect. (See, e.g., page 7, lines, 20-30). As a result, the disinfection time is 1 minute to about 20 minutes as recited in claim 75, at the temperatures recited in claims 71-73.

TU fails to disclose or suggest such a disinfection time. TU requires contacting a surface for 5 to 120 hours at a temperature between ambient temperature to 100°C (e.g., at page 7, lines 21-30, page 8, lines 11-16, the claims and Figures 1 and 2). Thus, one of ordinary skill in the art would have been discouraged from selecting a time such as is 1 minute to about 20 minutes, as recited in claim 75, for any of the claimed temperatures of 71-73, as TU requires contact for at least 5 hours at these temperatures.

TU also fails to disclose or suggest the claimed 1-(2-ethylhexyl) glycerol ether as recited in claim 68, the recited drying and cleaning temperatures recited in claims 69, 70 and 74.

Thus, at best, the proposed combination teaches disinfecting a 1,2 diol composition for 5 to 120 hours at ambient to 100°C, and the proposed combination fails to render obvious independent claim 67-75.

Therefore, withdrawal of this rejection is respectfully requested.

Claims 19, 20, 23 and 28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 31-33 of Application No. 10/445,715. This rejection is respectfully traversed.

Application No. 10/445,715 does not claim a particular temperature for disinfecting an inanimate surface, and, thus, alone or a particular temperature at which a composition is not effective, Application No. 10/445,715 cannot render obvious the claimed invention.

Therefore, withdrawal of this rejection is respectfully requested.

Claims 67-75 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 73-81 of Application No. 10/825,412.

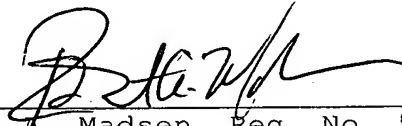
A terminal disclaimer will be filed with respect to Application No. 10/825,412, once allowable subject matter is indicated.

In view of the amendment to the claims and the forgoing remarks, applicants believe that the present application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



Robert A. Madsen, Reg. No. 58,543
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

RAM/fb